

ABSTRACT OF THE DISCLOSURE

A particle counter counts particles in aerosol having a particle size of from 2 nm to 50 nm in an operating pressure range from an atmospheric pressure through a reduced pressure to a low vacuum and calculate a particle size distribution. The particle counter charges particles in the aerosol and applies an electrostatic field thereto, and mixes the aerosol with a non-charged sheath gas flow shaped like a laminar flow whereby the respective particles separate into traces depending on their particle size where they can be counted. Further, by using an electron multiplier for exciting cluster ions to detect the charged particles and operating it as a high-pass filter, even if the number density of the particles is small, it is possible to effectively count the particles.